

"During the 'summer' small stinging flies or mosquitos are a real plague in Eastern Ecuador, and especially in the region of Canelos. In order to protect an esteemed guest from this molestation it is customary that the host of the house places at his feet a piece of a termite nest which has previously been set on fire, when it produces a thick, disagreeable smoke. I found this arrangement excellent, although frequently it had the disadvantage of driving out, not only the molesting flies, but also the guest himself. At any rate, my own eyes could not stand this disgusting smoke, to which I preferred even the mosquitos. When travelling on the river, where these little winged demons are particularly molesting, the Indians generally take such a smoking object with them in the canoe to have some protection for their bare limbs. "

"Similarly nature becomes ever more luxuriant. The mosquito plague is dreadful in these regions in the rainy season. Clouds of these little pests constantly swarm around us, anxious to suck our blood and torment us in every way. In vain I anoint my hands and face with an antiseptic ointment; only for a moment can it keep off the tor-[40]mentors. I realize the futility of the theory, set forth by some traveller in South America, which explains the Indian custom of body-painting as a means of keeping off mosquitos and flies. Animal life, and expecially [sic] bird life, grows ever richer. The great macaw, for instance, which requires a hot climate, only makes its appearance from Sarayacu downwards. This beautiful parrot as well as the smaller parrots, the tucan, and many other kinds of bird contribute towards giving life to the forests. Frequently, in the course of our journey, we stop to shoot a big turkey, a macaw, or some other bird which we have sighted in a tree close to the river bank, or to fish. Of big animals the tapir and the boar or wild pig are the most common. Even the jaguar is frequently seen in these uninhabited regions, although it generally takes to flight at the sight of an approaching canoe. On the Pastaza I found an especially rich animal life, large herds of peccary pigs and water hogs or capivaras being most often seen. On the river itself the numerous tortoises and alligators attract particular attention, whereas the great water boa or anaconda, although quite common in all rivers of Western Amazonas, is only seldom seen."

"In the forests of the Santiago wild game is very abundant. Among the larger mammals are to be listed the tapir, the capybara, the paça, the peccary, wild hogs, the giant ant bear, deer, and monkeys. Several members of the cat tribe are also to be found, the puma occurring in the higher mountains while the jaguar and ocelot are very abundant in the lowland jungles, as well as in the eastern foothills of the Andes. In the rivers are to be found both the manatee and the fresh-water porpoise. The most striking members of the reptilian family are alligators, turtles, the giant boa constrictors, and anacondas."

"Bird life is remarkably abundant and varied. The principal food birds are the greater and lesser pawil and toucans of several species. The Indian does not scorn for food purposes the various members of the parrot family, or in fact almost any bird which he might be able to kill.

Various insects are also utilized for food purposes. A certain variety of giant red ant is a favorite delicacy, these as a rule being eaten in a parched form. In addition to this, large white grubs are secured in quantities from rotten wood and are considered to be a particularly choice morsel of food. Frogs, lizards, and snails are likewise frequently eaten.

It is seldom necessary for the Jivaro to go hungry. With his skill in woodcraft and his knowledge of the wild plant and animal life of the jungles in which he lives, he is able as a rule to find food at all times on comparatively short notice."

"One day we came to a place where the river had cut a new channel and left the still warm water in a loop of the old bed. Here we had a chance of making some highly interesting experiments with that freak of nature, the electric eel. The water at this point was teeming with these fish and with rays, both of which are considered as great delicacies by all who inhabit the banks of the Amazon rivers. The former grow to an average length of three to four feet, being as many inches [256] thick. They seem to have no entrails except one straight canal, about the thickness of the little finger, which runs along the underside of the body from the head to the vent. Their general appearance is similar to the common fresh-water eel; they are slow swimmers, and therefore an easy prey to the spear. They are so heavily charged with electricity that a man cannot possibly retain his hold of a metal instrument if it comes in contact with their skins, or even with a metal pail in which one is swimming. Of course I was carrying with me no electric instruments with which to test their voltage, so could only measure the force of the shock they can give by touching the fish myself. With my machete I attempted to cut the head off one which had been speared and landed. I might just as well have tried to cut a trolley-wire with uninsulated pliers. The machete flew out of my hands and my arm was temporarily paralysed.

We finally picked up a small eel two feet long, and put it in a pail of water. We satisfied ourselves that it was perfectly safe to touch the fish, the pail or the water with a wooden stick, tending to prove that electricity is generated, and that the shock is not

due to any form of vibration.

Their [KS: electric eel] peculiar internal organism makes it possible to prepare them for eating by simply slicing them as one does a loaf of bread, no cleaning being necessary. Their meat is pure white and firm, and they make an excellent dish when fried. In this respect they are superior to the rays of which we also caught many.

It has occurred to me that the risk of swimming any stream infested with electric eels would be very great, for, as the natives of the Amazon basin confirm, they attack and kill other living things with the strong current with which nature has charged them. Two or [257] three such shocks as I myself received would be enough to paralyse the muscles of the whole body and cause death by drowning. In saying that these fish attack other creatures, I do not wish to infer that they are either carnivorous or vicious--merely that they use their natural powers instinctively in self-defence."

"On the evening of October 23rd Morse and I went off up-stream a few hundred yards to take a look round the next bend, the party having halted for the night earlier than usual, to make a careful search in the forest for indications of the recent presence of the enemy. We had a curious experience with an anaconda (the fourth and last which I found alive in the Amazon basin). I think the incident is worth recording, as being unique in all my travels, and as showing how inoffensive these great reptiles are during their period of dormancy. I cannot do better than quote from my original impressions:

"Having sighted the great reptile coiled up on a fallen tree which lay half in the water, half on the bank, we paddled quietly up to within a yard or two for closer inspection. It lay in a pyramid of coils, apparently sleeping. Surprised that it did not move, we splashed [259] water on it to wake it up; there being no result, I started to prod it with my paddle, and still meeting with no success, I lifted my paddle and brought it down on the snake's side with a resounding whack that actually broke the blade. It squirmed a little, but soon lay still again. Determined to get a closer view, I climbed out on to the log and kicked the fat black coils. It showed some signs of animation, so I got back into the canoe and continued to prod it. Finally it awoke, slipped into the water while still half rolled up, and swam leisurely away on the surface, giving us a good chance to judge its length. Comparison with the twenty-four foot canoe showed it to be some thirty feet long. Its indifference to our attacks was amazing, in view of our previous experiences

of the same species on the Yasuní. Moreover it did not appear to have eaten recently, no swelling being apparent. '

I did not enlarge very much at the time on the impression which the experience made on my mind, but it has stayed with me ever since in a very vivid form. It would appear that at one season of the year this otherwise alert, powerful, swift-moving creature lives in a state of slothful torpor from which nothing but the rudest shock will awake it. The contrast is astounding, and in this particular case all the more so, as there seemed to be no outward sign of any reason for the anaconda's dormancy. It was long and thin (thinner indeed than the three others I had seen). It might have been expected to uncoil and lash out at the first sign of our approach, but instead it behaved like a tame angle-worm. "

4: Up de Graff--291
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(1897) 1923

Jivaro

"Turtles were plentiful, and we found large quantities of eggs in all stages of incubation; those which contained fully formed live turtles proved even better eating than those not so far advanced."

"Barely three feet long, as thick as a man's thumb, its disproportionately large diamond-shaped head poised on its slender neck (the trade-mark of the venomous snakes) it attacked and chased with surprising temerity so large an antagonist as a man, evidently confident of its power to kill.

Examination showed it to be jet-black, except for the usual light underside. Its head was armed with the customary pair of fangs, about three-quarters of an inch long, and embedded in the membrane of the roof of the mouth were three other pairs, each one a little less developed than the last. Should they lose their fangs, these snakes have the necessary equipment to replace them. Perhaps they cast them periodically, as they do their skins. This specimen was the largest poisonous snake I ever saw in the Amazon basin. "

"During my six years in the Amazon bush, I did not see more [293] than half a dozen venomous snakes in all, comprising three species, two of them only some fifteen inches long. However small, they kill the native Indians. They succumb to their bite perhaps as much from the psychological effect as from the actual venom. Jack and I were both bitten by the snake which always proves fatal to the Jívaros who neither know of, nor attempt to discover any remedy against their bite. They are hopeless fatalists with regard to this particular catastrophe. They merely say 'I have been bitten,' and lie down to die. —

Doubtless there are other species which I have never seen, but at any rate the point which I wish to make, the fact of their comparative rarity, is indisputable. One would expect to find those vast untrodden swamps teeming with every conceivable variety of reptile."

"The fauna is purely tropical. The richness of its species is surprising, not only in their great variety, but in the number of individuals within each class. All the zoological orders are richly represented, above all, the insects, birds and fishes. Only with respect to the great mammals is this area surpassed by the Asiatic or African forests.

Among the best known animals, the monkeys--not the great four-handed ones--animate the woods in numerous hordes. The tapir or danta, because of his corpulence may be considered the king of the forest. Among the feline animals the jaguar, tigrillo and puma are outstanding. The common bear and the ant-eater [oso hormiguero] are much [101] pursued for their meat. The guatuza, a well developed species of rabbit, armadillos, squirrels, sahinos or wild pigs and many other quadrupeds populate the forest.

The birds are perhaps the representatives of the Oriente's zoology which attract most attention, because of their showy plumage and sonorous calls. 'They are granivorous or fructivorous, and for this reason all migrate, from the Marañon river to the first slopes of the cordilleras, following the maturation of the fruits, from the warmest lands to the coolest. It might be said that each tree has its parasite bird, which prefers its particular fruits; and the Jivaro Indians, very skilled in hunting with the blowgun

[cervatana] know well what is the season of the parrots, when is that of the turkey hens, and above all, when is the season for an infinity of small birds, which fly in hundreds from tree to tree eating flowers or fruits. '[102]

Migration is therefore a characteristic phenomenon of the birds of the Amazon woods.

Among the reptiles--the animals which perhaps constitute the greatest danger of the forest--are found enormous snakes such as the boa and anaconda, whose size has been much exaggerated. Turtles, which lay their eggs on the islets or beaches of the minor channels along the rivers; frogs, salamanders, poisonous serpents, although to a lesser degree than along the coast, are frequently encountered in these woods. And finally, there are the insects, which inject a note of varying color into the infinite green of the forest. The most beautiful and rare species of butterflies appear from 10 o'clock in the morning to three o'clock in the afternoon, although they commonly fly among the crowns of the giant trees and are therefore quite difficult to chase. Because of this fact the collecting of these insects is an expensive proposition."

"Our most frequent visitors were not human beings at all, but bats, which sailed in and out of our house as they pleased when night came on. Johnston had the greatest antipathy for them, although they were quite harmless. He objected to their flying so close over his face. He disliked feeling the wind made by their bony wings as they fluttered to and fro, wheeled about in the darkness and [148] flitted past again. At first it was only a few odd ones that visited us, but as soon as news spread abroad in the bat world that ripe bananas were to be had for the asking on the 'Playa,' their numbers began to swell nightly.

We had all kinds of bananas hung up in our larder, from the coarse plantains for cooking, to the more delicately flavoured fruit varieties. When morning came, we would see ample evidence of the midnight marauders. They would greedily gnaw off the skins of all ripe fruit, and then consume only a portion of the meat inside. Johnston, getting desperate at their ever-increasing numbers, swore loud and long that he would put an end to their depredations by barricading every crack through which they could enter. He went to great pains to accomplish this by hanging up nets and leaning branches covered with big leaves against the open sides of our dwelling. Of course, it was quite futile to take such precautions, for hungry bats will creep through tiny openings, if food is to be had inside. The trouble starts when they want to get out. After a good meal they feel so lazy they won't bother to go home, but just hang up comfortably wherever they happen to be and go to sleep. This is an

advantage bats have over men. We can only hang up our hats.

Johnston spent a good hour one evening in his efforts to render our abode bat-proof, but when daylight returned, the sight which greeted our eyes was unique. The inside of our house was a picture. Bats hung from the roof in shoals. They were suspended from our camp beds, they clung to every convenient rafter, row upon row like so much black drapery, still and motionless. Having been forced to remain all night, the mess they made was inconceivable, and it took us the best part of a morning to get rid of them and their litter. After that experience, Johnston voted for the policy of the open door. 'Why not sleep outside and give the house over to the bats?' he suggested."

The natives chiefly eat the following animals: two types of monkeys, a) the howling monkey (named cotomono by the whites and yakúm in Aguaruna) and b) the spider monkey (called maquisapa by the whites and wáši by the Aguaruna Indians); various types of turkeys, kúyo, onç [e], of which I have seen five; a hocko hen, paujiles, pívi, másu; a trumpeter bird, (tsiva), and many other birds whose names I do not know. In general, they do eat all birds, even the tiniest humming-birds. I have seen it how the Indians skinned a bird, speared it with a pointed stick and, without drawing it, roasted it over the fire and ate it. There is only one bird which they do not eat: they call it çáça. It has the shape of a pheasant, congregates in larger flights and emits a sound which lies halfway between croaking and screeching. The meat has a somewhat bitter taste, as I was able to find out for myself, but it is not so bad that somebody who is half-starved should reject it. [AN: The scientific name is Opisthocomus hoazin.] Of the larger mammals the following are not eaten: cattle, tapir (pamáu), ronsoco (ungumióg) and doe (hápa). [AN: It would be better to say: stag, species of the genus mazama.] The rubber collectors informed me that the Aguaruna Indians identify the doe with the devil. Ronsoco is a large rodent (Hydrochoerus capybara). Could it be that these animals are not eaten simply because they could not be killed with the blowgun--the only aboriginal weapon?

In this region where the rays of the sun scarcely penetrate, the road is rough and difficult, and there are nests of thousands and thousands of poisonous reptiles from which one must defend himself as best he can. Here lives the Jívaro, the savage of the Ecuadorian forest, physically beautiful with a masculine and imposing beauty, congenial in aspect and at the same time terrible because he does not accept domestication.

29: Vité--22 [3]
116, 122, 136

(1934) 1935

 Jívaro

We had gathered together precious material, not to mention a collection of snakes, among which was one that transmits a fatal poison simply by coiling his body, without biting or giving pain, and we had attended a unique ceremony of authentic savages.

/328 cont./

132 of an inhospitable climate, the unpleasantness of which is heightened even more by the abundance of moisture which, rising from the plains of the Amazonas, falls here on the high mountains. Even the Indian, who otherwise loves the high páramos, stays here only a short time. The huts of Atillo serve the inhabitants of the small village of Sunag, located on the downward slope toward Mácas, as a sort of temporary shelter on their journeys to maintain the mission's contacts with the capital, Riobamba.

132 The Ecuadorian speaks of Atillo, of Colaycocha, and of
● 136 the pass to Mácas only with a mysterious horror; poisonous vapors are said to rise from the small lakes, so that every bird flying over them falls dead. The dead birds are said to be found by the thousands on the shores of the lakes, especially of Cazadoracocha, which for this reason has retained the name of Hunter's Lake. Armed with baskets and sacks, the Indians go out to collect the fallen animals in order to sell them in the neighboring cities. This is one of those mysterious tales which, like the marvelous story of the fish spewed out of the volcanoes, can be traced to poorly observed facts, distorted by exaggeration and misunderstanding. That is, in Ecuador, as in almost all of South America, there is a number of snipe, ibis, and heron-like migratory birds which leave the hot country with the onset of good weather in order to seek their nourishment in the highlands. With the onset of bad weather they then return again to the hot country. These birds appear in masses in May or early June and stay until September. The animals seek the lowest passes to cross the Cordillera. Thus they follow the course of the Rio Cebadas in order to cross the watershed, lying between high mountains, toward the east near Colay and Cazadoracocha. In September, however, the trade winds, which press through the narrow pass with terrible force, often rage with hurricane-like violence. The force of the wind, which frequently a horseman can hardly withstand, throws back the birds, rising from the protected valley floor, as soon as they reach the top of the pass. The stronger animals can force their way through, but many of the weaker and smaller birds /329/ are overcome by

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132 the ice-cold wind, often driving hail and snow in front of it.

- 136 Exhausted by the many vain attempts, they meet their death in the lake, piling up on its shores.

132 I crossed this pass in the best season, in the month of
114 December, but even then the Indians accompanying me, in spite of the fact that all had been accustomed to mountain climbing for a long time, suffered from the penetrating cold and wetness.

133 One has hardly reached the end of the swampy highland valley and climbed the low ridge to the side of the Cocha redonda when the whole scene changes abruptly. One stands at the edge of a steep cliff, over whose wall a brook flowing from the above-mentioned Cocha falls in a high waterfall, a deep gorge filled with dark-green forest lies at our feet, and stunted trees go up as far as the edge of the pass. One imagines the spicy air and mild temperature of the warm country and feels invigorated; even the Indian, already dejected and stiff with cold, takes fresh courage at the sight of the montaña, the land of wondrous fertility. One descends steeply in zigzags along the cliff wall, the waterfalls are crossed several times, until the first valley floor is reached. The vegetation becomes more luxuriant with every step; we find ourselves in the zone which Pöppig portrayed so excellently in his description of the Ceja. We found Sunag (2,688 meters), a small village consisting of 15-20 wooden huts and a chapel, deserted; all the inhabitants had gone farther down the valley to harvest maize at Chanala (2,470 meters), Chillan, Puentehondo. The six or seven houses which make up the village of Paira (1,617 meters) lie two short days of travel farther down in the valley. The foot of the steep mountains has been reached here; only elongated hills continue to the east. The rivers, still rapid, to be sure, become broad and even navigable for short stretches; 491 an immense forest area stretches out before one's eyes. Up to here we found the brooks, which were difficult to cross, bridged over, although the liana bridges, serving as a model for our suspension bridges, sometimes offered crossings which appeared

- 273 and plantains around it. She supports the basket with a tumpline
 462 over the forehead, carries an empty cooking pot in her right
 512 hand, a firebrand in her left hand, and the axe under her arm.
 313 Leaving the children in the house, she sets forth down the trail
 with her husband, who carries only his gun and his machete.
 [482] When they arrive at the spot where trees are to be felled, she
 fetches wood, makes a fire, and cooks manioc. Her husband
 starts felling trees. After about two hours he calls for beer. He
 drinks two or three gourd bowls full and continues working.
 In about another hour he calls for beer again and drinks a similar
 [252] amount. He tells his wife to cook meat and continues working.
 Around noon he goes to where she has been cooking, and asks
 [252] for beer, drinking three gourd bowls full. She serves boiled
 [262] meat, putting it, with boiled manioc and roasted plantains, on
 fresh banana leaves. When they finish eating, he drinks beer
 again, and returns to his work. He fells trees for about an hour,
 comes back and drinks more beer.

- Then they return home. When they arrive, he sits down on his
 [606] stool and asks for beer. At about 1 P.M., his daughter and son-in-
 law, who live a few hundred yards away, drop by and join in
 [535] drinking beer. They all begin to social-dance and, since there is
 ample beer brewed, they continue drinking and dancing all
 afternoon and late into the night. They drink beer continually
 [262] and do not bother to prepare or eat any food. The children
 [855] drink beer, too, and munch on cold boiled manioc. By about
 [606] 3 A.M., everyone has fallen asleep, the daughter and son-in-law
 staying overnight in the house. They all sleep until early the
 next afternoon, when they eat.

- 224 Hunting is the chief source of protein, and is more impor-
 [146] tant to the food supply than fishing or gathering, contributing
 an estimated 20 per cent of the diet. A great diversity of
 [222] botanical and zoological species exists in this region,³ but this
 • [136] variety is typically accompanied by low density of popula-
 [222] tion for any particular species. This low density sometimes
 [136]

poses a problem for Indians engaged in collecting a specific kind of wild fruit or hunting a particular species of game. This situation is aggravated for the hunter by the fact that virtually all of the Jivaro territory has been hunted efficiently for a long period of time, with the result that game is not as abundant as in regions unoccupied by the Indians. This fact was particularly driven home to my Jivaro companions and me in 1969, when, in traveling through an unhunted "no-man's-land" between the Jivaro and the Achuara along the lower Río Cangaimi, which had not been exploited because of the enmity between the two groups, we encountered unprecedented quantities of monkeys and birds.

The Jivaro, under the circumstances, do not normally find collecting a very rewarding activity, and, in hunting, they cannot afford the luxury of specializing in a few large game animals, such as might be possible in some other environments. The blowgun, suitable for hunting game ranging from small birds to large monkeys, therefore, becomes a very important food-securing weapon.

Mammals especially important to subsistence include peccary, agouti, and such monkeys as howler, squirrel, capuchin, and black. Peccary and monkey are valued for both their skins and flesh, while the agouti and armadillo are utilized generally for the meat alone. Most species of birds, except for carrion-eaters, are hunted almost daily as sources of food and for their plumage. Birds most often killed include species of parrot, toucan, dove, and curassow. Both the large and small species of toucan are particularly prized for their pelts and feathers; jaguar, ocelot and other feline species are commonly hunted for their skins (see Plate 9). Rabbits and deer, although present, are never hunted for food, the former because they are "like rats," the latter for supernatural reasons (see p. 150).

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